Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A rotor blade ~~of~~ for a wind power plant having a hub and a rotor, comprising:

a rotor blade ~~connection~~ connector adapted for connection to ~~a~~ the hub of the rotor of ~~a~~ the wind power plant; ~~and~~

a blade tip disposed at ~~the~~ an opposite end of the rotor blade from the rotor blade connector; and~~, characterized in that~~

~~at least one~~an electrical conductor ~~is~~ laid over ~~the~~ a length of the rotor blade, ~~wherein~~ the electrical conductor ~~begins~~ beginning at the rotor blade ~~connection~~connector, and extending~~s~~ in ~~the~~a longitudinal direction of the rotor blade to proximate the blade tip and back to the rotor blade ~~connection~~connector, and ~~that there is provided~~ the electrical conductor configured to couple to a detector ~~which~~ configured to detect~~s~~ ~~the~~ an electrical resistance of the electrical conductor~~ and that the detector is connected to an evaluation device which evaluates the electrical resistance~~.

2. Canceled.

3. (Currently Amended) ~~A~~ The rotor blade ~~as set forth in~~of claim 1, ~~characterized in that~~ further comprising a plurality of additional electrical conductors ~~is~~ laid from the rotor blade ~~connection~~ connector in the longitudinal direction of the rotor blade and back again, ~~and that said~~ each of the additional electrical conductors ~~are connected~~ configured to couple to the detector.

4. (Currently Amended) ~~A~~ The rotor blade ~~as set forth in~~of claim 3, ~~characterized in that~~ wherein at least one of the additional electrical conductors extends a predetermined distance in the longitudinal direction of the rotor blade, said predetermined distance being shorter than the length of the rotor blade.

5. Canceled.

6. (Currently Amended) ~~A~~ The rotor blade ~~as set forth in~~ of claim ~~5~~4, ~~characterized in that~~ wherein the at least one of the additional electrical conductors extending over the predetermined distance ~~which is shorter than the rotor blade length~~ is galvanically connected at a predetermined location to the electrical conductor ~~which extends over the rotor blade length~~extending to proximate the blade tip.

7. (Currently Amended) ~~A~~ The rotor blade ~~as set forth in~~ of claim 1, ~~characterized in that~~ wherein the ~~at least one~~ electrical conductor is fixedly connected to ~~the~~ a support structure of the rotor blade.

8. (Currently Amended) ~~A~~ The rotor blade ~~as set forth in~~of claim 7, ~~characterized in that~~ wherein the electrical conductor is enclosed in the support structure of the rotor blade.

9. (Currently Amended) ~~A~~ The rotor blade ~~as set forth in one~~ of claim 7, ~~characterized in that~~ wherein the electrical conductor is enclosed in a carrier ~~which~~ that is connected to but releasable from the support structure.

10. (Currently Amended) ~~A~~ The rotor blade ~~as set forth in~~ of claim 7, ~~characterized in that~~ wherein the ~~at least one~~ electrical conductor is provided ~~on/in~~on or in ~~each~~ the support structure in the longitudinal direction of the rotor blade.

11. (Currently Amended) ~~A~~ The rotor blade ~~as set forth in~~ of claim 1, ~~characterized in that~~ wherein the electrical conductors ~~contain~~ comprises ~~at least a predetermined~~ aluminum ~~component~~.

12. (Currently Amended) ~~A~~ The rotor blade ~~as set forth in~~ of claim 1, ~~characterized in that~~ wherein the ~~electrical~~ conductors ~~has~~ve a predetermined surface roughness.

13. (Currently Amended) ~~A~~ The rotor blade ~~as set forth in~~ of claim 1, ~~characterized in that~~ wherein the electrical conductors ~~are~~ is further configured to ~~connected~~ couple to a plug connector in ~~the~~ a region of ~~the~~ the rotor blade connection ~~root~~.

14. (Currently Amended) A method ~~process and apparatus~~ for measuring ~~the~~ a flexing ~~or change in length~~ of a ~~product, namely a rotor blade or a pylon~~component of a wind power plant, comprising:

positioning ~~wherein laid in the product is~~ a conductor within a component of a wind power plant such that a length of the conductor changes ~~which upon~~during a flexing ~~and/or a change in length~~ of the ~~product~~ component~~experiences a change in length,~~;

generating ~~, wherein a signal, preferably~~ a pulse signal at a first end of the conductor~~, is generated by means of a signal generator and fed into the line at the first input thereof,~~;

receiving the pulse signal via the conductor at a second end of the conductor;~~wherein arranged at the second end of the line is a signal receiver which~~

~~upon reception of the signal from the signal generator causes same to emit~~ generating an additional pulse ~~further~~ signal at the first end of the conductor based at least in part upon reception of the pulse signal;~~, and~~

~~that there is provided a device~~ measuring ~~by means of which the~~ a number of ~~emitted~~ pulse signals generated within a ~~predetermined~~ unit of time;

comparing the measured number of pulse signals with a stored table; ~~is measured~~ and

~~determining the~~ the flexing ~~and/or increase in length~~ of the ~~product~~ component ~~can be ascertained from~~ based at least in part on the comparison ~~of the measured number of emitted signals per predetermined unit of time with a stored table~~.

15. (Currently Amended) An ~~process and~~ apparatus for measuring ~~the flexing or~~a change in a length of a ~~product, namely a rotor blade or a pylon~~ component of a wind power plant, comprising:

~~wherein laid in the product is~~ a conductor positioned within a component of a wind power plant such that a length of the conductor changes ~~which upon flexing and/or~~ with a change in a length of the ~~product experiences a change in length~~component;~~,~~

a signal generator coupled to a first end of the conductor and configured to generate ~~wherein a signal, preferably~~ a pulse signal thereon~~, is generated by means of a signal generator and fed into the line at the first input thereof,~~;

~~wherein however arranged at the second end of the line is~~ a reflector coupled to a second end of the conductor and configured to ~~which~~ reflect~~s~~ the pulse signal ~~from the signal generator~~ back to the first end of the conductor~~line~~; and

a signal receiver ~~where it is received at the input by a signal receiver~~ coupled to the first end of the conductor and to the signal generator, the signal receiver configured to receive the reflected pulse signal and to cause the signal generator to generate ~~and which then triggers the above described triggering of a further~~ an additional pulse signal based at least in part upon reception of the reflected pulse signal ~~by the signal generator~~, ~~wherein the signal generator and the signal receiver are connected together and the~~ a time between ~~signal~~ the reception of the reflected pulse signal and ~~triggering of a~~the generation of the additional pulse ~~consequential~~ signal ~~by the signal generator is always~~ being substantially constant.

16. (Currently Amended) ~~A process and~~The ~~apparatus as set forth in~~ method of claim 14, wherein the ~~line~~ conductor ~~is~~ comprises at least one of an electrical ~~line~~ conductor or an optical fiber cable.

17. (Currently Amended) ~~A process and~~ The apparatus ~~as set forth in~~ of claim 15, wherein the conductor is connected in a positively locking relationship to the ~~product~~ component at least at ~~its~~ the first end and the second end~~s~~ of the conductor.

18. (Currently Amended) ~~A process and~~The apparatus ~~as set forth in~~ of claim 15, wherein the conductor is connected to the ~~product~~ component in a positively locking relationship at least in a given region, and, upon ~~flexing or elongation~~the change in the length of the ~~product~~ component, the length of the conductor ~~is stretched~~changes only in said ~~predetermined~~ given region.

19. (Currently Amended) A wind power plant comprising ~~at least one~~the rotor blade ~~as set forth in~~of claim 1~~5~~.

20. (Currently Amended) An apparatus for measuring distortion of a blade, comprising:

a blade comprising a first end and a blade tip, wherein the first end and the blade tip are located at opposite ends of ~~the~~ a length of the blade;

a conductor extending longitudinally from adjacent the first end of the blade a predetermined distance along the length of the blade toward the blade tip and back to adjacent the first end of the blade, the conductor being coupled to a structure of the blade ~~structure~~; and

a detector coupled to the conductor and configured to detect changes in ~~the~~ a length of the conductor.

21. Canceled.

22. (Previously Presented) The apparatus of claim 20, wherein the blade comprises a rotor blade of a wind power plant, and the first end of the blade is connected to a hub.

23. (Currently Amended) An~~The~~ apparatus ~~of claim 20~~for measuring distortion of a blade, comprising:~~, wherein~~

a blade comprising a first end and a blade tip, wherein the first end and the blade tip are located at opposite ends of a length of the blade;

a conductor extending longitudinally from the first end of the blade a predetermined distance along the length of the blade toward the blade tip, the conductor being coupled to a structure of the blade and ~~the conductor~~ helically surroundsing the blad~~e, extending longitudinally from the first end of the blade toward the blade tip~~; and

a detector coupled to the conductor and configured to detect changes in a length of the conductor.

24. (Currently Amended) The apparatus of claim 20, wherein the conductor is selected from ~~the~~ a group consisting of an electrical conductor, an acoustic conductor, and an optical conductor.

25. (Currently Amended) The apparatus of claim 24, wherein the electrical conductor contains a ~~predetermined~~ percentage of aluminum.

26. (Currently Amended) The apparatus of claim 20, further comprising additional conductors extending longitudinally from adjacent the first end toward the blade tip.

27. (Previously Presented) The apparatus of claim 26, wherein at least one of the additional conductors extends along a first face of the blade and at least one of the additional conductors extends along a second face of the blade, the second face being opposite the first face.

28. (Currently Amended) The apparatus of claim 26, wherein the conductor and the additional conductors are electrical conductors, and the additional conductors ~~that~~ are

galvanically connected at a plurality of predetermined lengths to the conductor, ~~wherein~~ each of the predetermined lengths ~~is~~ being shorter than the predetermined distance~~conductor~~.

29. (Currently Amended) The apparatus of claim 26, wherein the additional conductors extend a plurality of different lengths, each of the different lengths being shorter than the length of the blade.

30. (Currently Amended) The apparatus of claim ~~26~~20, wherein the conductor is releasably coupled to the blade ~~to facilitate replacement of the conductor~~.

31. (Currently Amended) An ~~The~~ apparatus ~~of claim 20~~for measuring distortion of a blade, comprising: ~~further comprising~~

a blade comprising a first end and a blade tip, wherein the first end and the blade tip are located at opposite ends of a length of the blade;

a conductor extending longitudinally from adjacent the first end of the blade a predetermined distance along the length of the blade toward the blade tip, the conductor being coupled to a structure of the blade;

a ~~second~~ calibration conductor ~~used for calibration~~ extending longitudinally from the first end of the blade a second predetermined distance along the length of the blade toward the blade tip, ~~wherein~~ the ~~second~~ calibration conductor ~~is~~ coupled to the blade such that a distortion of the blade does not substantially alter ~~the~~ a length of the ~~second~~ calibration conductor; and

a detector coupled to the conductor and configured to detect changes in a length of the conductor.

32. (New) The apparatus of claim 26, wherein the detector is coupled to the additional conductors and is further configured to detect changes in corresponding lengths of the additional conductors.

33. (New) The apparatus of claim 22, further comprising an evaluation device coupled to the detector and to a control device of the wind power plant, the evaluation device configured to cause the wind power plant to shut down if detected changes in the length of the conductor exceed a predetermined value.

34. (New) The apparatus of claim 31, wherein the length of the calibration conductor is substantially similar to the length of the conductor.

35. (New) The apparatus of claim 31, wherein the detector is coupled to the calibration conductor and is further configured to use measurements of the calibration conductor to detect the changes in the length of the conductor.

36. (New) A wind power plant, comprising:

a rotor having a hub;

a rotor blade coupled to the hub at a first end of the rotor blade and extending to a rotor blade tip;

a first conducting loop extending along the rotor blade from proximate the first end in a direction of the rotor blade tip and back to the first end;

a second conducting loop extending along the rotor blade from proximate the first end in a direction of the rotor blade tip and back to the first end;

a detector system coupled to the first conducting loop and the second conducting loop and configured to detect a first characteristic of the first conducting loop and a second characteristic of the second conducting loop; and

a control system coupled to the detector system and configured to control the wind power plant based at least in part on a difference between the first characteristic and the second characteristic.

37. (New) The wind power plant of claim 36, wherein the first characteristic and the second characteristic comprise electrical resistance values of the first conducting loop and the second conducting loop, respectively.

38. (New) The wind power plant of claim 36, wherein the first characteristic and the second characteristic comprise delay times for signals transmitted through the first conducting loop and the second conducting loop, respectively.

39. (New) The wind power plant of claim 36, wherein the detector system comprises a first detector coupled to the first conducting loop and configured to detect the first characteristic, and a second detector coupled to the second conducting loop and configured to detect the second characteristic.

40. (New) The wind power plant of claim 36, wherein the detector system comprises a detector coupled to both the first conducting loop and the second conducting loop and configured to detect the first characteristic and the second characteristic.

41. (New) The wind power plant of claim 36, wherein the first conducting loop has a loop length and extends along substantially an entire length of the rotor blade such that a flexing of the rotor blade causes a change in the first characteristic, and the second conducting loop has the loop length and extends along less than the entire length of the rotor blade such that the flexing of the rotor blade does not cause a substantial change in the second characteristic.

42. (New) The wind power plant of claim 36, wherein the difference between the first characteristic and the second characteristic is indicative of a flexing of the rotor blade.